

How to Access the Maryland LiDAR Topography Server



What is the Maryland LiDAR Topography Server?

The Maryland LiDAR Topography Server is a central repository for LiDAR Image Services in Maryland. Hosted through ArcGIS for Server, these services were developed as mosaic datasets, providing numerous derivative product functions and accessibility for users. These services are available through multiple platforms, including ESRI, Google Earth, and QGIS.

What Image Services are Available?

The ESRGC hosts a variety of LiDAR Image Services including aspect, slope, hillshade, shaded relief, and digital elevation models in feet and meters.

Maryland LiDAR is accessible on the [MD iMAP Topography Server](#); for those users who require the raw data, countywide DEMs are available for download from the [MD iMAP LiDAR Download page](#).

The following instructions provide details on the available functionality and guidelines on how to get the most out of using LiDAR Image Services.


You can access the Maryland LiDAR Server across multiple platforms; the following tutorials have been provided:

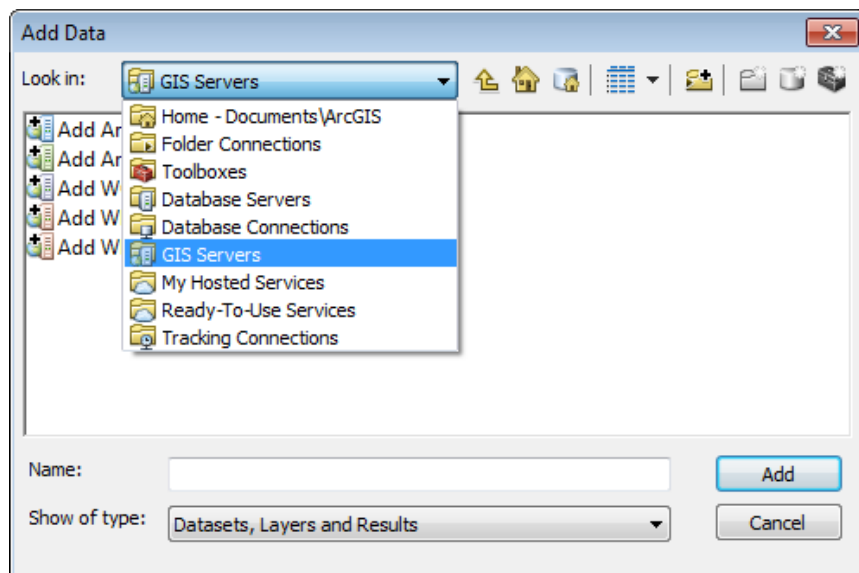
[Connecting to Maryland LiDAR Image Services in ArcGIS for Desktop](#)

[Connecting to Maryland LiDAR Image Services in QGIS](#)

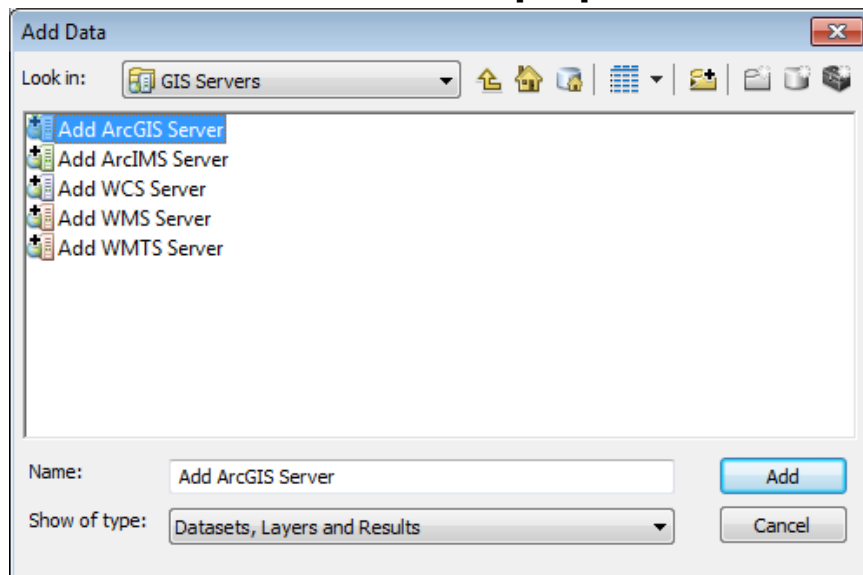
[Connecting to Maryland LiDAR Image Services in ArcGIS Online](#)

Connecting to Maryland LiDAR Image Services in ArcGIS for Desktop

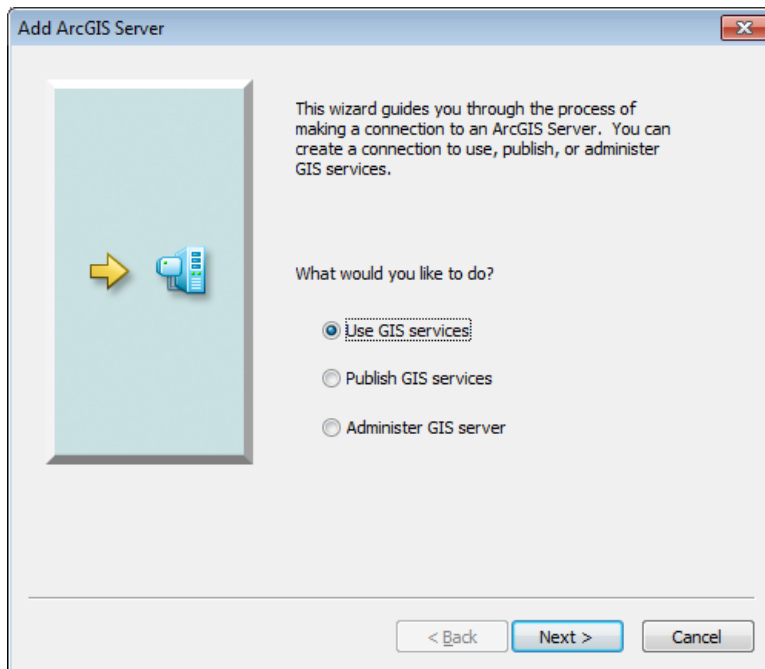
1. Open ArcMap
2. In ArcMap, click the [Add Data] button 
3. From the “Look in:” dropdown, select GIS Servers.



4. Select “Add ArcGIS Server” > Click [Add].

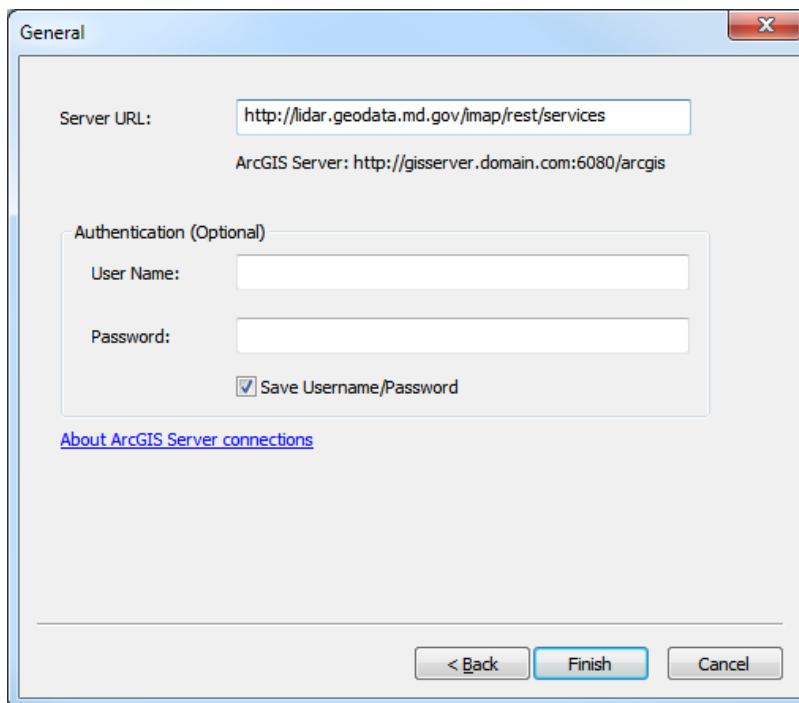


5. Select “Use GIS Services” and click [Next >].

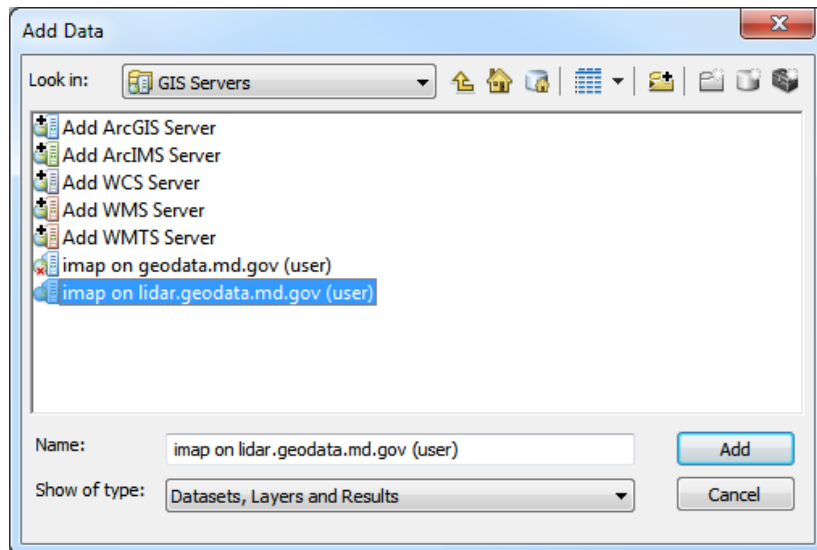


6. Place your URL in the “Server URL:” text box; click [Finish].

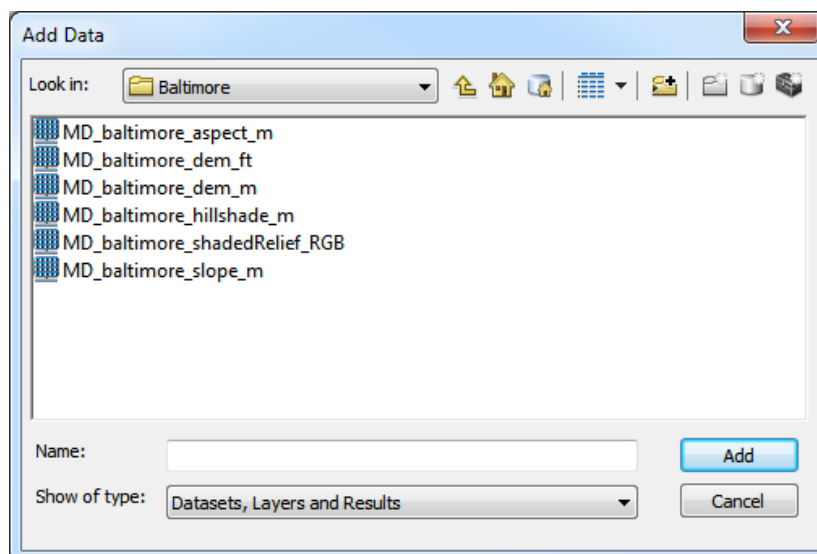
For example: <http://lidar.geodata.md.gov/imap/rest/services> connects you to the LiDAR server.



- Once connected to the server, navigate the contained services by selecting the server connection and clicking [Add].



- Double click the desired county folder to expand the available services; select the desired service and click [Add].

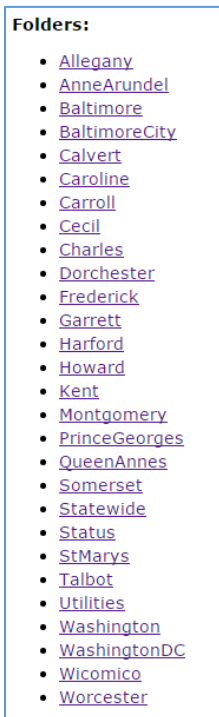


Note: The connection to the LiDAR server only needs to be made once in ArcGIS Desktop. You can now navigate the available services through the [Add Data] window. Services are also navigable through the [Catalog] window.

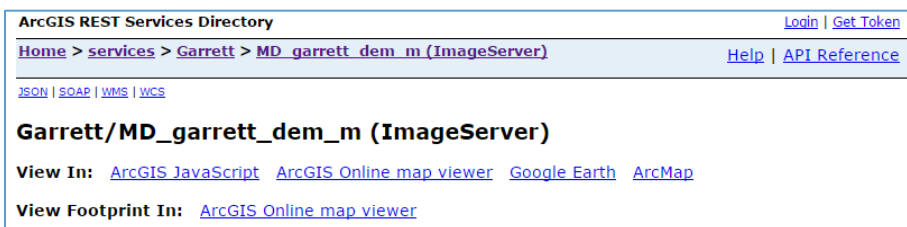


Connecting to Maryland LiDAR Image Services in QGIS

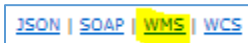
1. Open internet browser to <http://lidar.geodata.md.gov/imap/rest/services>
2. Navigate to the desired county folder.



3. Select and open the desired Image Service

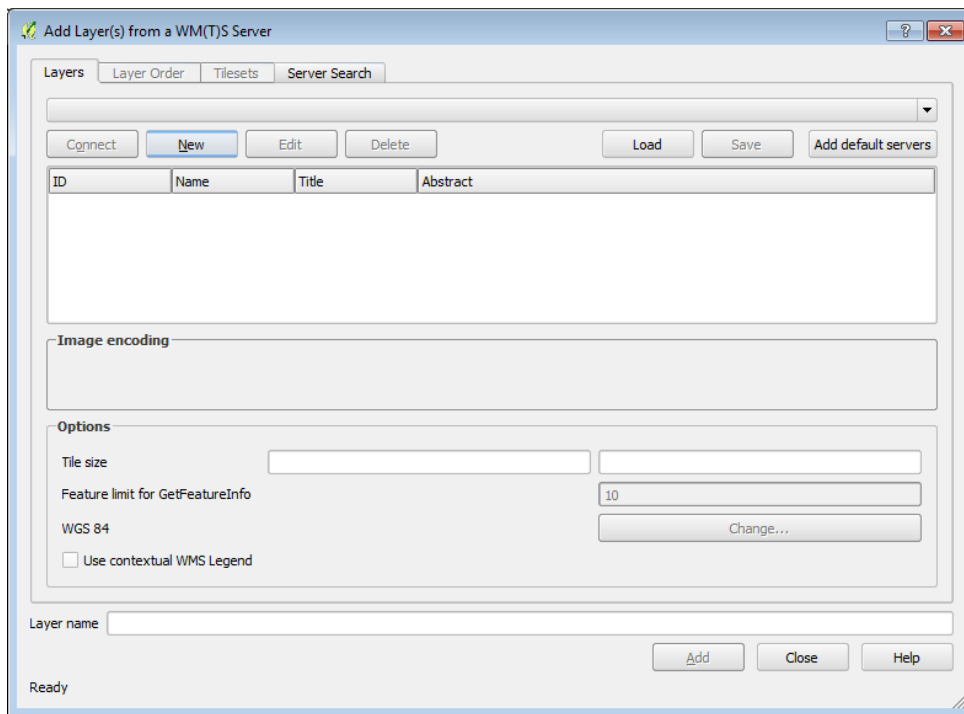


4. Select WMS in the service page; leave this window open and Copy the URL.



5. Open QGIS

6. Click the icon  to add WMS layer to map.
7. Click [New] to create a WMS connection.

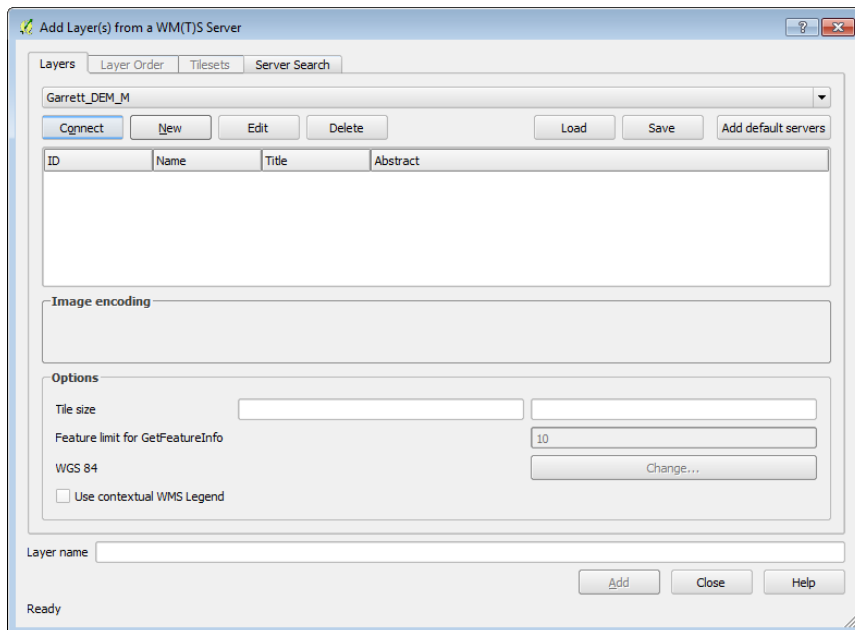


8. Create a name for the connection and paste the WMS URL link in the “URL” text box.

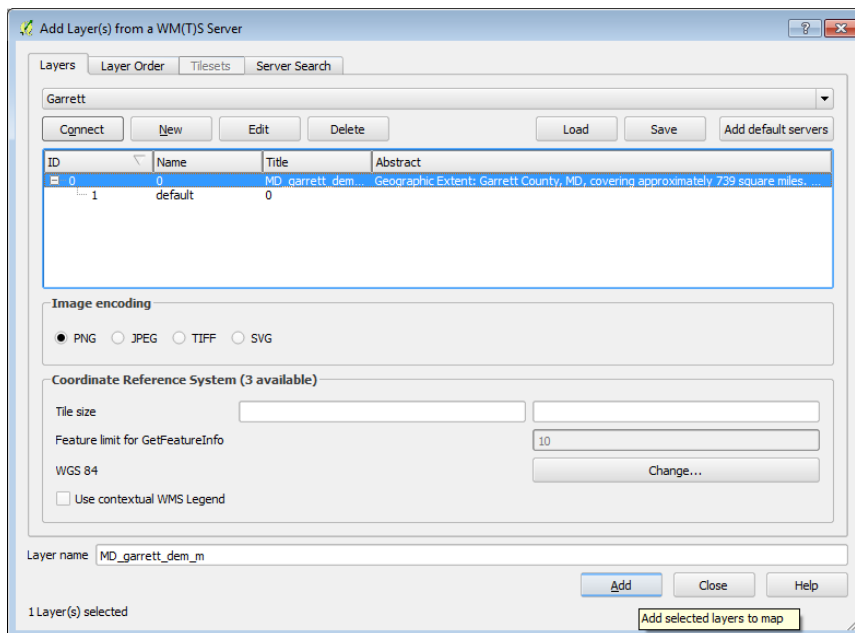
Name	<input type="text" value="Garrett_DEM_m"/>
URL	<input type="text" value="_dem_m/ImageServer/WMSServer?request=GetCapabilities&service=WMS"/>

9. Click OK >


10. Click [Connect] to create the WMS service connection

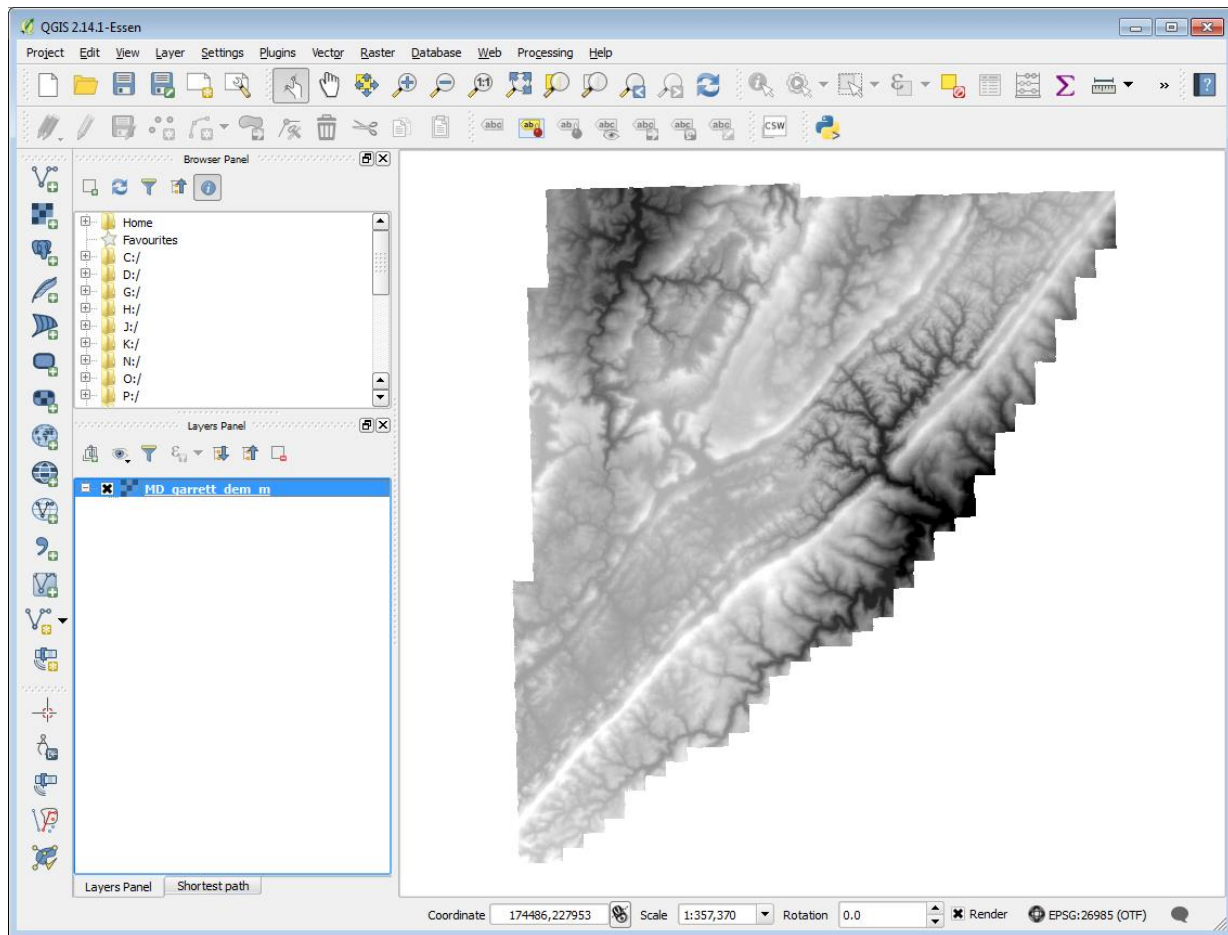


11. Select WMS layer in the list. Select your Image Encoding; click [Add].



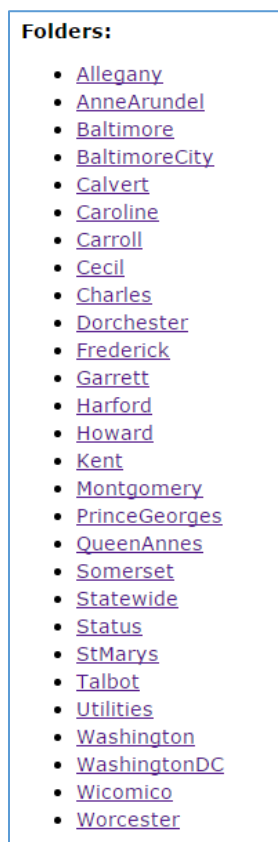
Note: TIFF image format is not supported in QGIS for WMS Single Band Image Services.

12. Note: The connection to the WMS Server only needs to be made once. Navigate to the [Add WMS Layer button]  to access and modify WMS Server connections.

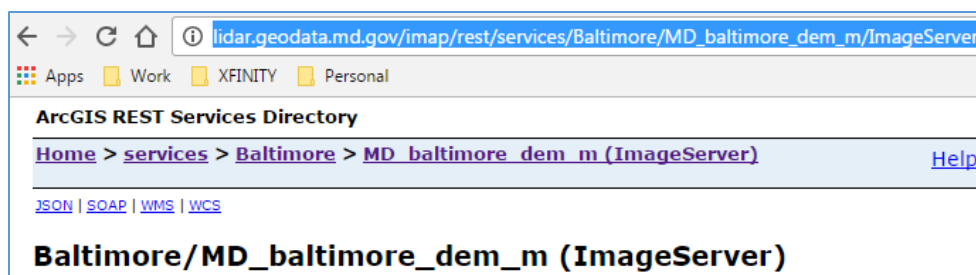


Connecting to Maryland LiDAR Image Services in ArcGIS Online

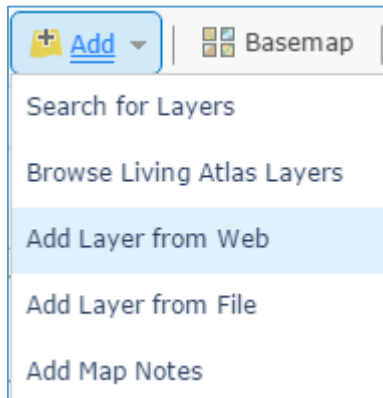
1. Open browser to <http://lidar.geodata.md.gov/imap/rest/services>
2. Navigate to the desired county folder.



3. Select and open the desired Image Service > Copy the Image Service URL.



4. Open your desired Web Map in AGOL.
5. Click the [Add] dropdown and select “Add Layer from Web”.



6. From the dropdown, select “An ArcGIS Server Web Service”
Paste the Image Service URL in the provided text box.

A screenshot of the 'Add Layer from Web' dialog box. The title is 'Add Layer from Web'. Below the title, it asks 'What type of data are you referencing?'. There is a dropdown menu with 'An ArcGIS Server Web Service' selected. Below that, there is a text box labeled 'URL:' containing the URL 'http://lidar.geodata.md.gov/imap/rest/services/Baltimore/MD_baltimore_dem_m/Ima'. There is a checkbox labeled 'Use as Basemap' which is currently unchecked. At the bottom right, there are two buttons: 'ADD LAYER' (in blue) and 'CANCEL'.

7. Click [Add Layer] to add the Image Service to your Web Map.

ADDITIONAL RESOURCES

For more information about Maryland LiDAR, please visit the [Maryland LiDAR Overview page](#)

For more information about additional training opportunities, please visit the [MD iMAP Training Overview](#) page, or contact Lisa Lowe, Senior GIS Analyst with the Maryland Department of Information Technology, Geographic Information Office at lisa.lowe@maryland.gov.

For additional MD iMAP datasets, please visit the [GIS Data Catalog](#)

For all other inquiries related to Maryland LiDAR, please contact the GIO Office at service.desk@maryland.gov.